What is claimed is:

1. A composition for normalizing impaired or deteriorating neurological function in the body of a human, comprising effective amounts of:

(A) at least one agent which promotes synthesis of ATP and/or creatine phosphate in the body;

(B) at least one antioxidant for scavenging free radicals in at least one pathway in the body;

(C) at least one agent for normalizing or maintaining membrane function and structure in the body;

(D) at least one agent for normalizing or maintaining normal neurotransmitter function in the body;

(E) at least one agent for down-regulating cortisol action; and

(F) at least one agent for suppressing activation of apoptotic pathways in the body.

2. A composition according to claim 1, wherein component (A) comprises one or more members selected from the group consisting of co-enzyme Q10, idebenone, taurine, acetyl L-carnitine, nicotinamide adenine dinucleotide, phosphatidyl serine, B-vitamins, vinpocetine, oral creatine, cytidine-5'-diphosphocholine, ribose and alpha lipoic acid.

3. A composition according to claim 2, wherein component (A) comprises a combination of oral creatine and ALA in an oral creatine:ALA weight ratio of from about 1:30 to about 2500:1.

4. A composition according to claim 1, wherein component (B) comprises one or more antioxidants selected from the following: idebenone, co-enzyme Q10, vitamin E, ALA, vitamin C, carnosine, tocotrienols, flavonoids, ALC, vinpocetine, selenium, lycopene, creatine, arginine, taurine, cysteine, nicotinamide adenine dinucleotide, resveratrol, ginkgo biloba, oligomeric proanthocyanidins, and phenolic antioxidants.

5. A composition according to claim 4, wherein component (B) comprises a combination of taurine and cysteine at a taurine:cysteine weight ratio of from about 1:20 to about 60:1.

6. A composition according to claim 1, wherein component (C) comprises one or more members selected from the group consisting of: gamma linolenic acid; highly polyunsaturated long

30

chain fatty acids; CDP-choline; methyl donors; S-adenosyl methionine, antioxidants and sphingosine.

7.   A composition according to claim 6, wherein component (C) is a highly polyunsaturated long chain fatty acid selected from the group consisting of: docosahexanoic acid, phosphatidyl serine, phosphatidyl choline, phosphatidyl ethanolamine, and phosphatidyl inositol.

8.   A composition according to claim 7, wherein component (C) comprises a combination of docosahexanoic acid and phosphatidyl serine at docosahexanoic acid:phospatidyl serine weight ratio of from about 1000:1 to about 1:100.

9.   A composition according to claim 1, wherein component (D) comprises one or more agents selected from the group consisting of: (1) an agent for synthesis of neurotransmitters; (2) an agent for stimulation of production and secretion of neurotransmitters; (3) an agent for inhibition of enzymes used to degrade various neurotransmitter molecules within the region of the synaptic cleft; (4) a re-uptake inhibitor; (5) an agent that facilitates improved binding at the receptor site; (7) an agent for induction of enzymes used to synthesize neurotransmitters; and (8) an agent for augmentation of neurotransmitter receptor sites.

10.   A composition according to claim 9, wherein component (D) comprises one or more agents selected from the group consisting of: choline, CDP-choline, phosphatidyl choline, DMAE, amino acids, phosphatidyl serine, vinpocetine, huperzine A, ritalin, pergolide, soy phytoestrogens, and SAMe.

11.   A composition according to claim 10, wherein component (D) comprises a combination of DMAE and huperzine A at a DMAE:huperzine weight ratio of from about 2000:1 to about 67:1.

12.   A composition according to claim 1, wherein component (E) comprises one or more agents selected from the group consisting of phosphatidyl serine, dehydroepiandrosterone, melatonin, and pyridoxine.

13.   A composition according to claim 1, wherein component (F) comprises one or more agents selected from the group consisting of: vinpocetine, huperzine A, magnesium, calcium channel blockers, resveratrol, pycnogenol, and lycopene.

14.   A composition according to claim 14, wherein component (F) comprises huperzine A and vinpocetine at a huperzine A:vinpocetine weight ratio of from about 1:2 to about 1:200.

15.   A composition according to claim 1, further comprising one or more of the following ingredients:

31

(G) at least one agent for suppressing inflammation in the body;

(H) at least one agent for normalizing or maintaining vascular wall function and structure in the body;

(I) at least one agent for normalizing or maintaining function of nerve growth factors and/or neurotropic factors in the body;

(J) at least one agent for suppressing toxic metal ionic effects;

(K) at least one agent for normalizing or maintaining methyl metabolism in the body;

(L) at least one agent for normalizing or maintaining metabolism of insulin and glucose in the body; and

(M) at least one agent for up-regulating activity of heat shock proteins in the body.

16.   A composition according to claim 15, wherein component (G) comprises one or more agents selected from the group consisting of: COX-2 inhibitors, CDP-choline, phosphatidyl serine, dehydroepiandrosterone, melatonin, pyridoxine, magnesium, gamma linolenic acid, long chain omega 3 fatty acids, insulin-sensitizing agents, antioxidants and vitamin C.

17.   A composition according to claim 15, wherein component (H) comprises one or more agents selected from the group consisting of magnesium, L-arginine, L-taurine, antioxidants, insulin-sensitivity enhancers, long chain polyunsaturated fatty acids, vinpocetine, creatine, choline, betaine, vitamin B_6, vitamin B_{12}, folic acid, supplemental potassium, dehydroepiandrosterone, phosphatidyl serine, S-adenosyl methionine, zinc and selenium.

18.   A composition according to claim 15, wherein component (I) comprises one or more agents selected from the group consisting of estrogenic compounds, idebenone, and propentofylline.

19.   A composition according to claim 15, wherein component (J) comprises one or more agents selected from the group consisting of desferroximine, alpha-lipoic acid, zinc, silicon and polyphenolic antioxidants.

20.   A composition according to claim 15, wherein component (K) comprises one or more agents selected from the group consisting of dehydroepiandrosterone, phosphatidyl serine, S-adenosyl methionine, choline, folic acid, vitamin B_6, vitamin B_{12}, betaine, zinc, selenium and creatine.

32

Doc. 617127

21. A composition according to claim 15, wherein component (L) comprises (a) one or more agents which down-regulate glutamatergic tone and/or (b) one or more insulin-sensitizing agents.

22. A composition according to claim 21, wherein component (L) comprises one or more agents selected from the group consisting of huperzine A, magnesium and chromium.

23. A composition according to claim 15, comprising: thiamine, riboflavin, niacin, carnosine, pyridoxine, folic acid, vitamin B_{12}, biotin, pantothenic acid, vitamin C, vitamin E, magnesium, zinc, selenium, chromium, potassium, oligomeric proanthocyanidin, cysteine, taurine, acetyl-L-carnitine, creatine monohydrate, DMAE, choline, inositol, phosphatidyl serine, phosphatidyl choline, phosphatidyl ethanolamine, phosphatidyl inositol, docosahexanoic acid, vinpocetine, huperzine A, coenzyme Q10, L-arginine, idebenone, gamma linoleic acid, silicon, alpha-lipoic acid, resveratrol, soy isoflavones, CDP-choline, NADH, DHEA, melatonin, ribose, lycopene; betaine and ginkgo biloba.

24. A method for normalizing impaired or deteriorating neurological function in a human suffering from impaired or deteriorating neurological function, comprising administering for a therapeutically effective period to said human an effective amount of a nutritional supplement composition comprising effective amounts of:

(A) at least one agent which promotes synthesis of ATP and/or creatine phosphate in the body;

(B) at least one antioxidant for scavenging free radicals in at least one pathway in the body;

(C) at least one agent for normalizing or maintaining membrane function and structure in the body;

(D) at least one agent for normalizing or maintaining normal neurotransmitter function in the body;

(E) at least one agent for down-regulating cortisol action; and

(F) at least one agent for suppressing activation of apoptotic pathways in the body.

25. A method according to claim 24, wherein in the composition administered to said human, component (A) comprises one or more members selected from the group consisting of co-enzyme Q10, idebenone, taurine, acetyl L-carnitine, nicotinamide adenine dinucleotide, phosphatidyl

33

serine, B-vitamins, vinpocetine, oral creatine, cytidine-5'-diphosphocholine, ribose and alpha lipoic acid.

26. A method according to claim 25, wherein in the composition administered to said human, component (A) comprises a combination of oral creatine and ALA in an oral creatine:ALA weight ratio of from about 1:30 to about 2500:1.

27. A method according to claim 24, wherein in the composition administered to said human, component (B) comprises one or more antioxidants selected from the following: idebenone, co-enzyme Q10, vitamin E, ALA, vitamin C, flavonoids, carnosine, tocotrienols, ALC, vinpocetine, selenium, lycopene, creatine, arginine, taurine, cysteine, nicotinamide adenine dinucleotide, resveratrol, ginkgo biloba, oligomeric proanthocyanidins, and phenolic antioxidants.

28. A method according to claim 27, wherein in the composition administered to said human, component (B) comprises a combination of taurine and cysteine at a taurine:cysteine weight ratio of from about 1:20 to about 60:1.

29. A method according to claim 24, wherein in the composition administered to said human, component (C) comprises one or more members selected from the group consisting of: gamma linolenic acid; highly polyunsaturated long chain fatty acids; CDP-choline; methyl donors; S-adenosyl methionine, antioxidants and sphingosine.

30. A method according to claim 29, wherein in the composition administered to said human, component (C) is a highly polyunsaturated long chain fatty acid selected from the group consisting of: docosahexanoic acid, phosphatidyl serine, phosphatidyl choline, phosphatidyl ethanolamine, and phosphatidyl inositol.

31. A method according to claim 30, wherein in the composition administered to said human, component (C) comprises a combination of docosahexanoic acid and phosphatidyl serine at docosahexanoic acid:phospatidyl serine weight ratio of from about 1000:1 to about 1:100.

32. A method according to claim 24, wherein in the composition administered to said human, component (D) comprises one or more agents selected from the group consisting of: (1) an agent for synthesis of neurotransmitters; (2) an agent for stimulation of production and secretion of neurotransmitters; (3) an agent for inhibition of enzymes used to degrade various neurotransmitter molecules within the region of the synaptic cleft; (4) a re-uptake inhibitor; (5) an agent that facilitates improved binding at the receptor site; (7) an agent for induction of enzymes used to synthesize neurotransmitters; and (8) an agent for augmentation of neurotransmitter receptor sites.

34

33. A method according to claim 32, wherein in the composition administered to said human, component (D) comprises one or more agents selected from the group consisting of: choline, CDP-choline, phosphatidyl choline, DMAE, amino acids, phosphatidyl serine, vinpocetine, huperzine A, ritalin, pergolide, soy phytoestrogens, and SAMe.

34. A method according to claim 33, wherein in the composition administered to said human, component (D) comprises a combination of DMAE and huperzine A at a DMAE:huperzine A weight ratio of from about 2000:1 to about 67:1.

35. A method according to claim 24, wherein in the composition administered to said human, component (E) comprises one or more agents selected from the group consisting of phosphatidyl serine, dehydroepiandrosterone, melatonin, and pyridoxine.

36. A method according to claim 24, wherein in the composition administered to said human, component (F) comprises one or more agents selected from the group consisting of: vinpocetine, huperzine A, magnesium, calcium channel blockers, resveratrol, pycnogenol, and lycopene.

37. A method according to claim 36, wherein in the composition administered to said human, component (F) comprises a combination of huperzine A and vinpocetine in a huperzine A:vinpocetine ratio of from about 1:2 to about 1:200.

38. A method according to claim 24, wherein the composition administered to said human further comprises one or more of the following ingredients:

(G) at least one agent for suppressing inflammation in the body;

(H) at least one agent for normalizing or maintaining vascular wall function and structure in the body;

(I) at least one agent for normalizing or maintaining function of nerve growth factors and/or neurotropic factors in the body;

(J) at least one agent for suppressing toxic metal ionic effects;

(K) at least one agent for normalizing or maintaining methyl metabolism in the body;

(L) at least one agent for normalizing or maintaining metabolism of insulin and glucose in the body; and

(M) at least one agent for up-regulating activity of heat shock proteins in the body.

Doc. 617127

39.   A method according to claim 38, wherein in the composition administered to said human, component (G) comprises one or more agents selected from the group consisting of: COX-2 inhibitors, CDP-choline, phosphatidyl serine, dehydroepiandrosterone, melatonin, pyridoxine, magnesium, gamma linolenic acid, long chain omega 3 fatty acids, insulin-sensitizing agents, antioxidants and vitamin C.

40.   A method according to claim 38, wherein in the composition administered to said human, component (H) comprises one or more agents selected from the group consisting of magnesium, L-arginine, L-taurine, antioxidants, insulin-sensitivity enhancers, long chain polyunsaturated fatty acids, vinpocetine, creatine, choline, betaine, vitamin B_6, vitamin B_{12}, folic acid, supplemental potassium, dehydroepiandrosterone, phosphatidyl serine, S-adenosyl methionine, zinc and selenium.

41.   A method according to claim 38, wherein in the composition administered to said human, component (I) comprises one or more agents selected from the group consisting of estrogenic compounds, idebenone, and propentofylline.

42.   A method according to claim 38, wherein in the composition administered to said human, component (J) comprises one or more agents selected from the group consisting of desferroximine, alpha-lipoic acid, zinc, silicon and polyphenolic antioxidants.

43.   A method according to claim 38, wherein in the composition administered to said human, component (K) comprises one or more agents selected from the group consisting of dehydroepiandrosterone, phosphatidyl serine, S-adenosyl methionine, choline, folic acid, vitamin B_6, vitamin B_{12}, betaine, zinc, selenium and creatine.

44.   A method according to claim 38, wherein in the composition administered to said human, component (L) comprises (a) one or more agents which down-regulate glutamatergic tone and/or (b) one or more insulin-sensitizing agents.

45.   A method according to claim 44, wherein in the composition administered to said human, component (L) comprises one or more agents selected from the group consisting of huperzine A, magnesium and chromium.

46.   A method according to claim 38, wherein the composition administered to said human comprises: thiamine, riboflavin, niacin, carnosine, pyridoxine, folic acid, vitamin B_{12}, biotin, pantothenic acid, vitamin C, vitamin E, magnesium, zinc, selenium, chromium, potassium, oligomeric proanthocyanidin, cysteine, taurine, acetyl-L-carnitine, creatine monohydrate, DMAE, choline, inositol, phosphatidyl serine, phosphatidyl choline, phosphatidyl ethanolamine,

Doc. 617127

phosphatidyl inositol, docosahexanoic acid, vinpocetine, huperzine A, coenzyme Q10, L-arginine, idebenone, gamma linoleic acid, silicon, alpha-lipoic acid, resveratrol, soy isoflavones, CDP-choline, NADH, DHEA, melatonin, ribose, lycopene, betaine and ginkgo biloba.

47.   A method according to claim 38, wherein the composition is administered on a daily basis to said human.

48.   A method according to claim 38, wherein said therapeutically effective period of time is at least three weeks.

49.   A method according to claim 38, wherein the effective amount of the composition is at least about 1 gram per serving.

50.   A method according to claim 24, further comprising the step of having the human follow a stress reduction program which is effective in down-regulating the hypothalamic-pituitary-adrenal axis and lower cortisol levels.

51.   A method according to claim 24, further comprising the step of having the human follow a cognitive retraining program.

52.   A method according to claim 24, further comprising the step of having the human follow a dietary plan designed to maximize insulin and glucose metabolism.